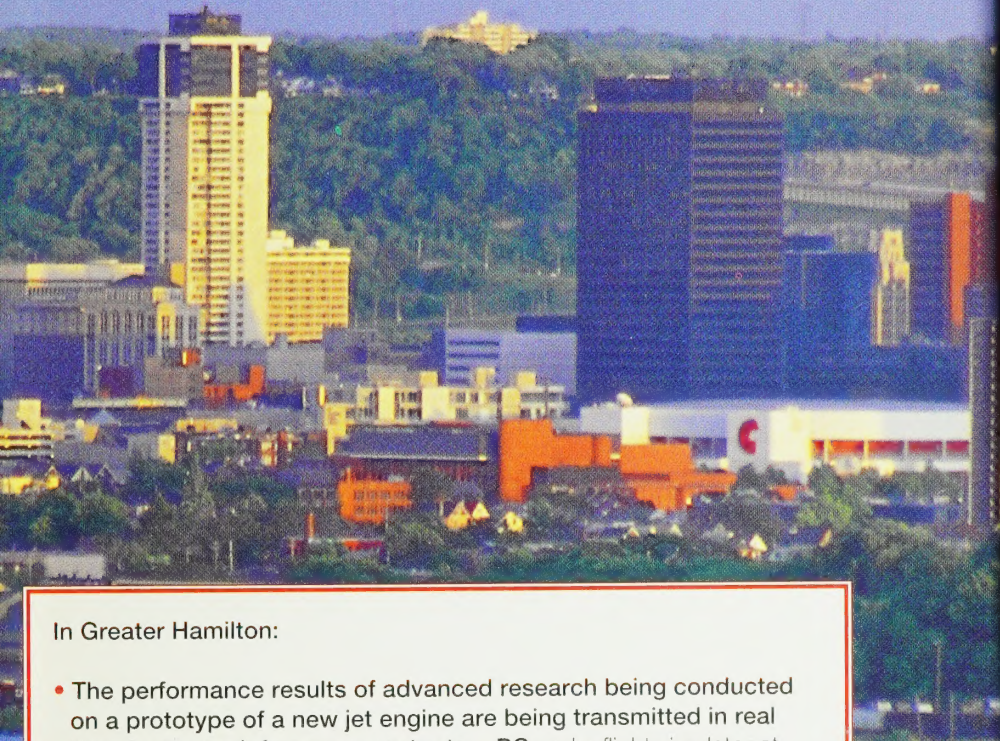


URBAN/MUNICIPAL

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In Greater Hamilton:

- The performance results of advanced research being conducted on a prototype of a new jet engine are being transmitted in real time from a mainframe computer to a PC and a flight simulator at the the Paris Air Show. Visitors to the show, many of them professional pilots, are able to test the improved performance that could be delivered by this new technology.

This would not be possible without digital switching, fibre optics and a host of other features and services provided by Bell Canada.

Supplying employees, regardless of where they are located around the globe, with the ability to share and manipulate the same data and visual images places tremendous power and flexibility in the hands of the organization. To fully exploit this power, organizations require advanced telecommunications infrastructure in the communities they are considering as a possible site for location or expansion.

Telecommunications is the underpinning of Greater Hamilton's economic strength. The local telecommunications infrastructure matches or surpasses that available in New York, Atlanta, Boston, Chicago, Buffalo, Phoenix, San Francisco and most major financial centres in the world in terms of access lines with digital switching and advanced signalling technology.

GREATER HAMILTON

Digital Toll and Digital Local Switching

Virtually all access lines are switched for both local and toll calls through one of the most sophisticated and widely used digital switching systems in the world - Northern Telecom's DMS™ series switches. Designed and manufactured in Canada, these switches are in use in virtually every regional operating company in the US and have gained considerable favour in Japanese, European and Middle East markets.

Without digital switching, network expansion and modification would be extremely difficult and expensive making it prohibitive to support advanced business services and applications.

CCS-7 and ISDN

Digital switching in conjunction with CCS-7 and ISDN permits a whole range of "intelligent" services to be built into the network.

CCS-7, using a single channel, carries information about a call separately from the message portion of the call. Call Display, which identifies the number of the person making the call simultaneously with the call's arrival, is one of several services presently available through the enhanced network.

All local lines are equipped with CCS-7.

CCS-7 creates a platform for ISDN service enhancements including completely seamless voice, video and data links across Canada, to major US carriers and to international locations served through Teleglobe.

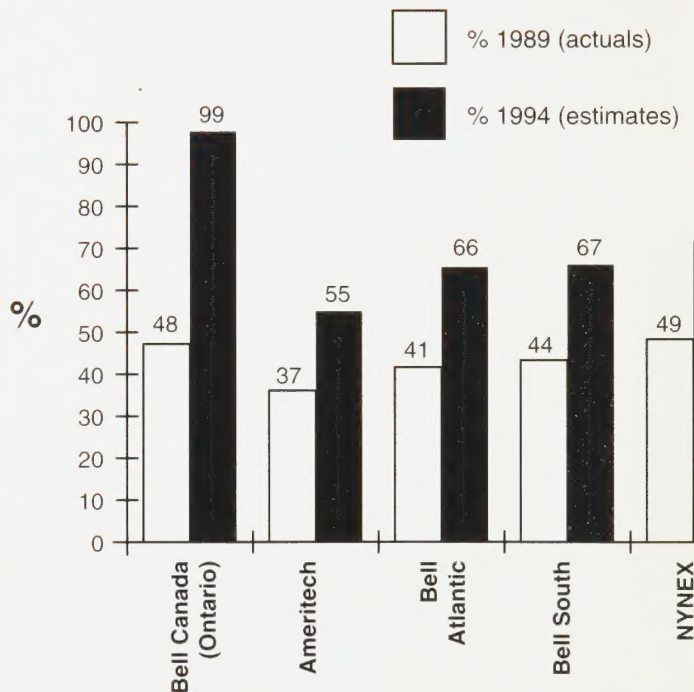
The end result is a vast array of services, applications and benefits such as:

- Video conferencing between desk top PCs
- Digital data transmission at a rate of four to 25 times faster than PC data modems
- Reduction of signalling time on telephone calls by approximately five seconds per call (a major benefit to high volume callers such as telemarketing or stock brokerage services)

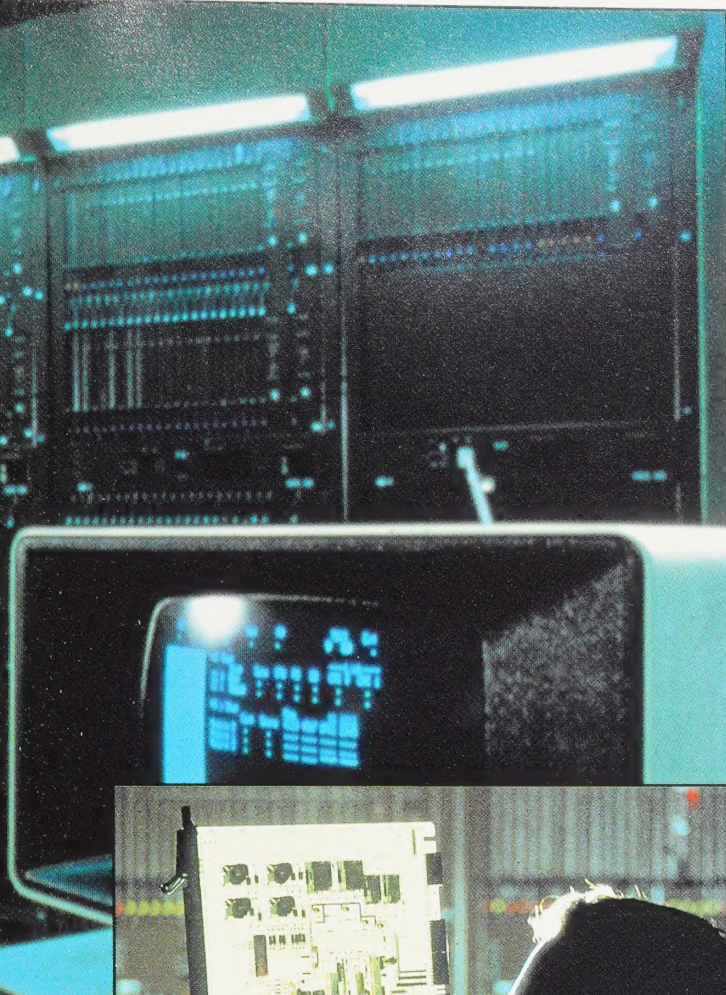
Bell Canada, through its affiliation with Northern Telecom and Bell-Northern Research and its partnership in Stentor, a corporate alliance of the major regional telephone operating companies in Canada, is presently offering ISDN services to meet the business needs of medium and large size companies.



% Access Lines with Digital Switching



Source: Bell Canada Current Plans and the NTIA Infrastructure Report (Telecommunications Infrastructure Study), U.S. Department of Commerce, Washington, October 1991.



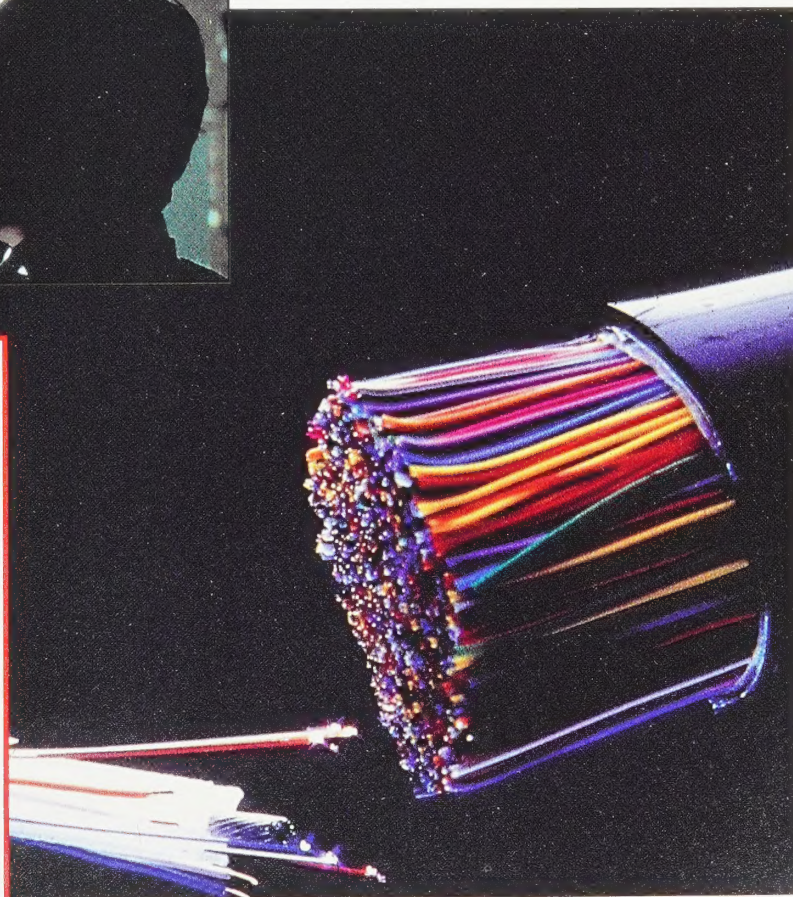
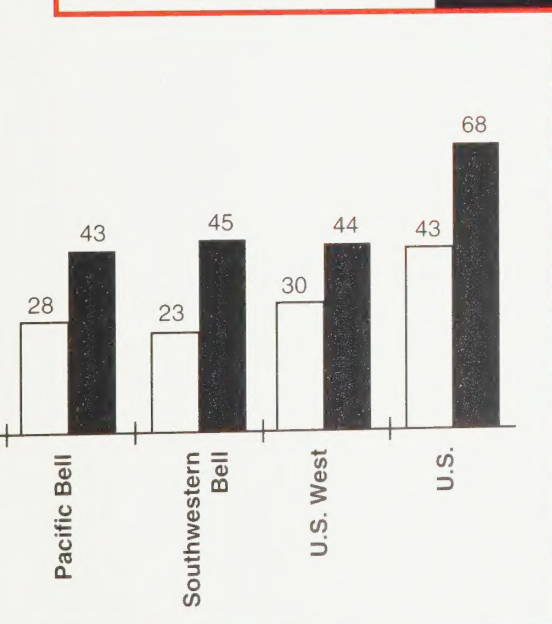
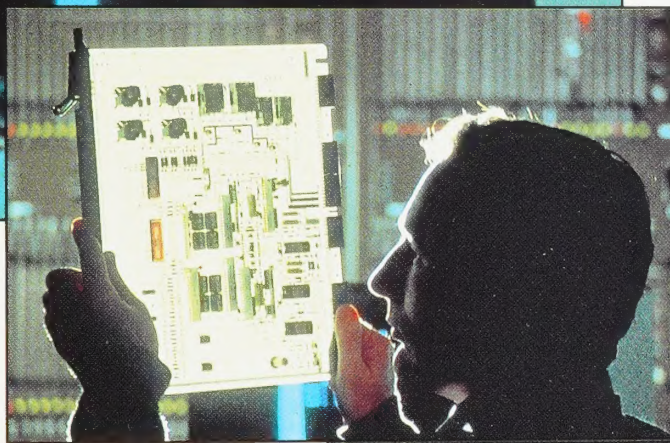
Fibre Optics

Fibre optics technology satisfies an ever increasing demand for capacity. It can simultaneously support basic phone service, high speed data and facsimile transmission, video conferencing, video data bases, high definition television and basic entertainment video. Fibre optics unleashes the potential of a variety of applications including:

- High speed information exchange required by the burgeoning financial services industry,
- Faster access to LANs for telecommuters,
- Distance learning and remote medicine required by the education and health care industries

The Bell toll link forms part of the Stentor trans-Canada fibre optic network. Stentor operates two high capacity digital routes, one all fibre, providing enhanced system survivability and making any temporary disruptions virtually transparent to system users.

The transport network linking all switching centres utilizes multiple paths and restorable fibre cable facilities. Several business locations presently have the additional system survivability and protection offered by fibre ring technology.



Local Telecommunications Infrastructure

- Digital local switching
- Digital toll switching
- Northern Telecom DMS™ switches
- Common Channel Signalling (CCS-7)
- Integrated Services Digital Network (ISDN)
- Seamless voice, video and data links with major US carriers and Teleglobe
- Partner in Stentor's two national digital routes
- Fibre ring safeguards at national, regional, local and business user level
- Dynamic routing
- Automatic facility restoration
- Virtual Corporate Network™
- Advantage™ VNET
- Reliability of public switched network

Dynamic Routing

Dynamic Routing is a built-in and completely transparent safeguard which increases network availability and ensures call completion. This network capability selects the most appropriate path for a call by, first, the most direct route, and if busy, the alternate route which will complete the call in the fastest time possible. Dynamic routing, along with the diversity of facilities, is designed to provide full protection on various routes in the toll and local networks.

Automatic Facility Restoration

Although the basic long distance transmission network has been engineered to operate with a high degree of reliability, it has been or will be further strengthened by Automatic Facility Restoration. This network capability significantly reduces system restoration time so that most users will not notice a temporary interruption of network service.

Fibre Ring Safeguards

A growing number of institutions (particularly those in the financial, health care, retail, manufacturing and government sectors) which are dependent on the movement of massive amounts of information, have been supplied with additional protection through fibre rings. These rings are similar to those which provide an alternate path between local switching centres except, in this case, they provide an alternate route between the customer and the network.

Virtual Corporate Network™

Mid to large size businesses now have at their disposal Virtual Corporate Network™ through a service called Advantage™ VNET. Comparable service was formerly available to only the largest corporations with the financial means to lease, on a monthly basis, dedicated physical links between various locations. Businesses can now create their own networks within the public switched network and pay only on a per use basis. A significant advantage of this service is that the burden of maintaining, expanding and modernizing the network is left with Bell Canada.

The ongoing introduction of new technologies enhances the ability to network remote host computers and transmit video and data, all at high speed. More importantly, business users are increasingly able to program and use the telecommunications system to meet their individual needs.

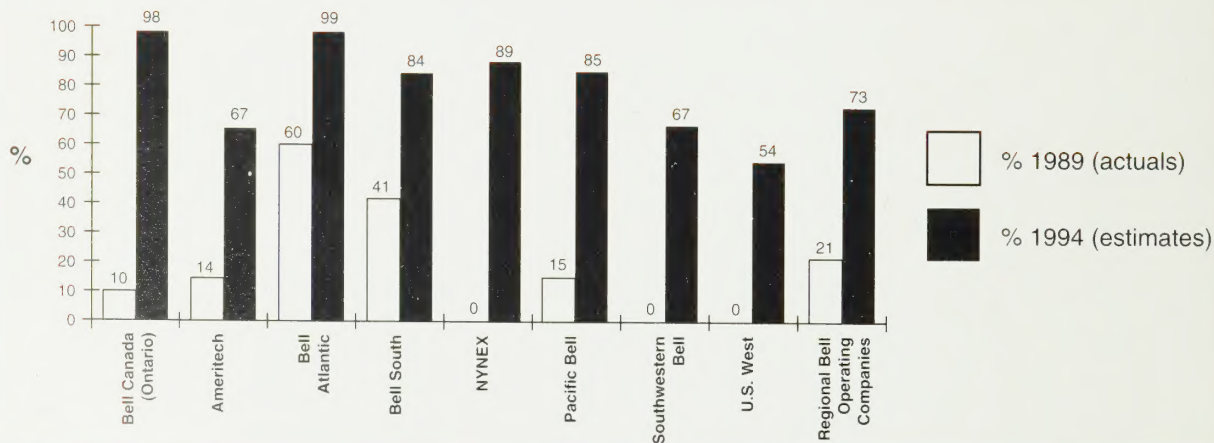
These capabilities are supported by the advanced telecommunications infrastructure of **Greater Hamilton** - an infrastructure that matches, and in most cases exceeds, the best available in North America.

For further information contact:

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L8N 3V9

Phone: 905-546-4447
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% Local Lines with CCS-7



Source: Bell Canada Current Plans and the NTIA Infrastructure Report (Telecommunications in the Age of Information), U.S. Department Commerce, Washington, October 1991.

